



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,860	11/15/2001	Bruce A. Judson	000192	6945

7590 05/09/2003

QUALCOMM Incorporated
Attn: Patent Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

GESESSE, TILAHUN

ART UNIT	PAPER NUMBER
----------	--------------

2684

DATE MAILED: 05/09/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/998,860

Applicant(s)

JUDSON ET AL.

Examiner

Tilahun B Gesesse

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: the specification has numerous errors, for instance, the detail discription of the specification does not correspond with figures of the drawing. The discription referring to fig.1, is a disclosure of fig.2A (page 4 of spec.) and the disclosure of fig.3 is detail of fig.2B (page 5 of the spec.) and also the disclosure for fig.4 is a detail of fig.3 (page 5-6 of the spec.). Since the detail discription of the specification and the figures do not correspond to one another then, appropriate correction is required.

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 though 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Velazquez et al (6,512,481).

As to claim 1, Velazquez et al disclose a mobile transceiver (30) having: a system for generation of position information and means for transmitting said position information (col.6 lines 12-64 and figs.7 & 8).

As claim 2, Velazquez et al disclose the system (fig.2) for generation of position

information includes means for receiving a signal from a satellite (col. 6, lines 12-25 and fig.7).

As to claim 3, Velazquez et al disclose the system (fig.2) for generation of position information includes means for receiving a Global Positioning System signal (col.6 lines 12-25 and fig.7).

As to claim 4, Velazquez et al disclose the system (fig.2) for generation of position information includes means for receiving a signal from an airborne platform (col.6 lines 12-25 and fig.7).

As to claim 5, Velazquez et al disclose the means for transmitting said position information includes a CDMA transmitter (col.1 lines 40-43).

As to claim 6, Velazquez et al disclose a base station (fig.2) having: means for receiving (220) position information from a remote unit and providing a received position signal in response thereto and means for directing a beam (220) in response to said received position signal (col.6 lines 26-64 and fig.8 and 9).

As to claim 7, Velazquez et al disclose the position information is provided at least in part by a Global Positioning System (col. 6 lines 12-25 and fig.7).

As to claim 8, Velazquez et al disclose the remote unit is a mobile transceiver (col. 5 line 63-col.6 line 25 and fig.7)

As to claim 9, Velazquez et al disclose the mobile transceiver is a CDMA transceiver (col.1 lines 40-43).

As to claim 10, Velazquez et al disclose the beam is directed to said transceiver (col.5 line 61- col. 6 line 11 and fig.6).

As to claim 11, Velazquez et al disclose the means for directing a beam includes a smart antenna (col.1 line 65-col.2 line 6).

As to claim 12, Velazquez et al disclose the means for directing a beam

includes an antenna array (fig.14 and 15).

As to claim 13, Velazquez et al disclose the means for driving said array to output a directed beam (fig.14 and 15).

As to claim 14, Velazquez et al disclose means for driving includes a Beam forming network (fig.14 and 15).

As to claim 15, Velazquez et al disclose a cellular communications system (fig.2) comprising: a mobile transceiver(fig.7) having: a GPS system (90) for generation of position information and means for transmitting said position information and a base station ((fig.9) having: means for receiving(320) said position information and providing a received position signal in response thereto and means located at said base station for directing a beam in response to said received position signal (col.6 lines 26-64).

As to claim 16, Velazquez et al disclose the GPS system is GPS assisted (col.6 lines 12-25 and fig.7).

As to claim 17, Velazquez et al disclose the means for directing a beam includes a smart Antenna (col.1 line 65-col.2 line 6).

As to claim 18, Velazquez et al disclose the means for directing a beam includes an antenna Array (figs. 12-15).

As to claim 19, Velazquez et al disclose the means for driving said array to output a directed beam (figs.12-15).

As to claim 20, Velazquez et al disclose the means for driving includes a Beam forming network (figs.12-15).

As to claim 21, Velazquez et al disclose a method for effecting directional cellular Communications (fig.2 and fig.9) including the steps of: Velazquez et al disclose generating

position information at a mobile transceiver (col.6 lines 45-48 and fig.9), transmitting said position information (col.6 lines 48-53 and fig.9) and means for receiving (25)said position information at a base station(col.6 lines 58-60 and fig.14) and providing a received position signal in response thereto (col.6 lines 43-44 and fig.15) and directing a beam from said base station to said mobile transceiver in response to said received position signal (col.7 lines 21-28 and fig.9).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kuwahara (6,070,079) discloses positioning apparatus used in a cellular communication system and capable of carrying out a positioning with a high accuracy in urban areas (title).

Forssen et al (5,615,409) disclose antenna array and beam forming and directing technique (figs. 2 and 3).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Or:

(703) 746-6042 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor, (Receptionist). Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun Gesesse whose telephone number is (703) 308-5873..

The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Nay, Maung, can be reached on (703) 308-7745. The fax phone number for this Group is (703) 872-9314. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

TBG

April 28, 2003



Tilahun Gesesse